

## Receiving Report

12/12/20

m 2 4080

THYOSHEN

18656 / 8619

Yes

✓

No

---

Yes

No

5

Yes

7

~~No~~

1

Cash

100

Cr

---

7 Yes

275

No

N/A

CONF 42112129

N/A

---

N/A

### Discrepancies

Discrepancies						
Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

12/4/61

2/20/17

11

\_\_\_\_\_

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All amounts are calculated in domestic currency.

ALL Vendors PO ID PO18619 Receipt Dates from 12/21/2012 to 12/21/2012

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Qty	Receiv Date/ Receiv Emp	Receiv Qty (PO U/M)	Cost Per Unit/ Receiv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID/Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO18619	3		M7075T6B1.000X1.0 f		12.0000	12/21/2012	12.0000	\$12.68	0.0000	0	\$152.12
			00								
CAD	No		7075 T6 BAR 1.00 f	f	12.0000	DESJ02		\$152.12	0.0000	0	
			x1.00								
			124079								
	4		M303B1.000X03.000 f	f	25.0000	12/21/2012	25.0000	\$50.21	0.0000	0	\$1,255.34
	No		303 BAR 1" X 3' f	f	24.0000	DESJ02		\$1,255.34	0.0000	0	
			124079								
	5		M174R0.750 f	f	36.0000	12/21/2012	36.0000	\$5.18	0.0000	0	\$186.59
	No		17-4 round bar .750 f	f	36.0000	DESJ02		\$186.59	0.0000	0	
			124079								
	6		M7075T6B1.500X1.5 f	f	12.0000	12/21/2012	12.0000	\$16.10	0.0000	0	\$193.23
			00								
	No		7075 T6 BAR 1.500 f	f	12.0000	DESJ02		\$193.23	0.0000	0	
			x 1.500								
			124079								
Total Received Quantity:											85.0000
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$1,787.27
Total Balance Due Quantity:											0.0000

# B I L L O F L A D I N G

No: PEC 800500

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 905-738-9033

Ship Date 20Dec12 at 15:29 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Ship To: ( 1)  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7  
 Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

- ✓ 1) Our Order PEC-519540- 1 Your PO # 18619 ADD ON  
 Part # 4-6 DAYS A.R.O  
 ALUMINUM SQUARE BAR 7075-T651  
 1.00" X 144.0000"

\*\* \$225.00 MIN ORDER \*\*

Heat Number  
 MA20125516

Tag No  
 135300

Quantity  
 12 FT

PCS 1 MTR Wt LBS  
 15

- ✓ 2) Our Order PEC-519540- 2 Your PO # 18619 ADD ON  
 STAINLESS STEEL FLAT BAR 303CD  
 1.00" X 3.00" X 150.0000"

Heat Number  
 253093

Tag No  
 546432

Quantity  
 25 FT

PCS 2 MTR Wt LBS  
 254

- ✓ 3) Our Order PEC-519540- 3 Your PO # 18619 ADD ON  
 ALUMINUM SQUARE BAR 7075-T651  
 1.50" X 144.0000"

Heat Number  
 MA0120030015

Tag No  
 135302

Quantity  
 12 FT

PCS 1 MTR Wt LBS  
 33

- ✓ 4) Our Order PEC-519540- 4 Your PO # 18619 ADD ON  
 STAINLESS STEEL ROUND BAR 17-4 STAINLESS  
 .750" DIA X 144.0000"

Heat Number  
 G19883

Tag No  
 135359

Quantity  
 36 FT

PCS 3 MTR Wt LBS  
 53

TOTAL: Tags 4 PCS 7 LBS 355

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

2 tube  
 1 planche  
 1 bundle

(4) G.C.

Larry Lawler 2012/12/20

## B I L L O F L A D I N G

No: PEC 800500

Ship From: THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 905-738-9033

Ship Date 20Dec12 at 15:29 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115)  
DART AEROSPACE

Ship To: ( 1)  
DART AEROSPACE

## B I L L O F L A D I N G

\*\*\* Chemical Analysis \*\*\*

Heat Number  
253093  
G19883

ADD ON TO 518871 SUR-CHARGE PAID SHIP TOGETHER

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT  
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*  
\*\* REFERENCED ON IT \*\*

TOTAL (1-4) 2 BDLS, 2 TUBES GW. 380 LBS

\*\*\*\*\* CLOSED FOR THE HOLIDAYS \*\*\*\*\*

ON DEC. 25TH & 26TH, 31ST & JAN. 1ST.

WE ARE OPENED FOR BUSINESS ON DEC. 24, 27 & 28.

HAVE A HAPPY HOLIDAY SEASON!

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA  
CONCORD, ONT.\* \*\*\* 9:00 AM TO 4:00 PM \*\*\*

\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*\*\*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

Page: 2 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.  
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

# Certified Inspection Report

09/22/12  
00:25:08

Alcoa Inc.  
Massena Operations  
Park Avenue East, Massena, NY 13662



Customer  
**Copper Brass Sales**  
Ship To  
**Copper Brass Sales**  
**1338 Orden Dr. Building**  
**Santa Fe Springs, CA 906**

Customer P.O. No.  
**5400153340**

Customer Part No.  
**(ALSQ00118)**

Alcoa Order No.  
**MMC-A4121-010**

Govt. Contract No.

We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, or as previously agreed to with customer and that samples representative of the material met the composition limits and have the mechanical properties shown on the face of this sheet.  
Manufactured under an ISO/TS 16949 registered quality management system  
Melted and manufactured in the USA.

Zhou Wang, Quality Assurance Manager

Date Shipped **09/21/12** Weight Shipped **1,462 lbs** Product **CFRB-CF SQ. Specific Length** BOL **000160586**  
Alloy - Temper **7075-T651** Size **1.00000 IN** Shape **SQ** Config **12 FT** QRR

Specifications:  
AMS 4123H (Except Marking)  
QQA-225/9E  
AMS-QQA-225/9  
ASTM B21-1-12  
Material conforms to T6 requirements

Product produced and marked to the requirements of AMS-QQA-225/9 also meets the requirements of QQA-A-225/9.  
Product produced and marked to the requirements of QQA-A-225/9 also meets the requirements of AMS-QQA-225/9.

TEST REQUIREMENTS	Max:	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
		U.T.S.	T.Y.S.	%Elong									
	Min:	77.0	66.0	07.0									

Test Results	No. of Tests	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test	Test
		U.T.S.	T.Y.S.	%Elong									
Lot / Work Order	4	Max: 83.7	77.3	15.5									
MA20125516		Min: 82.6	76.2	15.0									

When 2 or more tests per lot are made, the highest and lowest values are reported.  
Analysis obtained from one or more samples in this lot.

## TEST ABBREVIATIONS

U.T.S. Ultimate Tensile Strength KSI  
T.Y.S. Tensile Yield Strength KSI  
%Elong Elongation % in 2"

Aluminum Association Chemical Composition Limits (in Weight %)													
ALLOY	MAX	%SI	%FE	%CU	%Mn	%MG	%CR	%ZN	%TI	%Others	%Others	%AL	
		0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15	Rem	
7075	MIN			1.2		2.1	0.18	5.1		Each	Total		

Actual Started Chemistry													
LOT/WORK ORDER		%SI	%FE	%CU	%Mn	%MG	%CR	%ZN	%TI	%OE	%OT	%AL	
	MAX	0.06	0.14	1.7	0.02	2.5	0.20	5.9	0.03	LT 0.05	LT 0.15	Rem	
MA20125516	MIN	0.06	0.14	1.6	0.02	2.4	0.19	5.7	0.03				
If these certifications are													

NOTES:  
Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.  
This alloy meets the requirements of EU 2002/95/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

These certifications are for:



Delivery #: **2402207845**  
By: **Shane L. Robles**  
Quality check

# Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

**CERTIFICATO DI COLLAUDO**  
**ABNAHMEPRUEFZEUGNIS**  
**INSPECTION CERTIFICATE**  
**CERTIFICAT DE RECEPTION**  
**EN 10204 (2004) , 3.1**

54-151410

2

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.  
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clienti / Beseller/Purchaser/Client  
**VALBRUNA STAINLESS INC.**  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**  
Hersteller/Usine productrice

Avviso di Spedizione: D-VH12021835  
Lieferanzeige/Packing list/L.

Ordine nr: 33607 STOCK CAROL STR  
Bestell./Your order/Commande

Tipo di Elaborazione: E+AOD  
Erzeugnisart/Welding process/Mode d'elaboration

Certificato nr: MEST225671/2012/  
Prüfung/Test/Essai

Conferma ordine nr: EH12005792  
Werkz./Our Order/Ref. nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Sigle de l'usine productrice



Punzone del Collaudatore:  
Stempel des Werkssachverständigen  
Inspector's stamp/Pointon de l'essayeur



Stato di fornitura: - Annealed Cold Drawn  
Lieferzustand/Delivery state/Etat de livraison

Specifiche:  
Anforderungen / Requirements / Exigences

VSI 0 303 A,CF  
AMS 5840 U TYPE1 A  
ASTM A320 2011A B8F (1)  
MIL-S-862 B/1 303

AISI 303  
ASME SA320 2010 B8F (0)  
ASTM A370 2011A  
QQ-S-784 B/2 303 A

AMS 5840 U S30300 A  
ASTM A314 2008 S30300  
ASTM A582 2012 S30300 A

(0) SEC.II PT.A 2010 EDITION ADD. 2011a  
(1) Chemical analysis only.

(0) Chemical analysis only.

Qualità: 303  
Werkstoff/Grade/Matériau

Marca: AU188Z/P  
Markenbezeichnung  
Brand/Usine

Tolleranza: ASTM A484-10  
Toleranz/Allowance/Tolérance

Punzonatura: 303  
Kennzeichnung/Marking/Marque

Pos. nr. Pos. nr. Nr. de poste	Oggetto Gegenstand Product description Descr. du produit	Dimensioni - in Abmessungen Dimension Dimension	Lunghezza - in Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr.
0080	Flat	3,0000 x 1,0000	137 / 150	253093		2.017	124300080

## TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf lieferbarem Produkt test à l'état de fourniture Prueba sobre el material así como entregado

TEST	Provetta/Probestab Specimen/Eprobestab Long. diam. Spesen Brille Diam. Dicke Wich Diam. Thickness Long. diam. épais mm	°F	Poiz. Saggio Probe Essai mm	Snervamento Streckgrenze Yield Stress Rp 0,2% k.s.l.	Snervamento Streckgrenze Yield Stress Limite élastique k.s.l.	Resistenza Zugfestigkeit Tensile strength Resistance à traction Rm k.s.l.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Einziehdehnung Reduction of area Briction RA %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Härte Hardness Dureté HB
	Valori richiesti 1 Anforderungen/Required values Valeurs demandées	min max		-	-	-	-	-	-	140 255
A	12,5	68	L	69		100	40	53		237

TEST		min	max	
A	Grain size for ASTM E112			5

1) L=longitudinale/longs, T=transversale/quer, Q=Trasversale/tangentiale

Mechanical properties according to ASTM A370.

## Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata/Heat Schmelze/Coulée	min - max 0,150	1,00	1,50 2,00	17,00 19,00	0,80	1,00	8,00 10,00	0,100	0,25 0,35	0,400	-	-	-	-
C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %				
253093	0,037	0,32	1,74	17,16	0,47	0,47	8,21	0,125	0,030	0,33	0,006			

Produced without class I-II Ozone depleting substances.  
Solution heat treated free from continuous carbide network.  
Annealing temperature: 1940°F for 1 h/water.  
Micro and macro etch test: OK  
Material is DFARS Compliant

DAS  
14  
8-89

12/12/24

Sono state soddisfatte tutte le condizioni richieste  
Die gestellten Anforderungen sind in Anlage erfüllt  
The material has been furnished in accordance with the requirements  
Le matériel a été trouvé conforme aux exigences

Controllo antimiscelazione: OK  
Verwechslungsprüfung: spektrometrisch durchgeführt  
Antimixing testing performed: OK  
Contrôle antimélange fait: r.a.s.

Controllo visivo e dimensionale: soddisfa le esigenze  
Besichtigung und Ausmessung: ohne Beanstandung  
Visual inspection and dimensional check/satisfactory  
Contrôle visuel et dimensionnel: satisfaisant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination  
We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.  
The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s. 4.3 by TUEV and LLOYD'S

Vicenza, 13/07/12 VCC008 (Mod. MCE2)	Il collaudatore di stabilimento / der Werkssachverständige / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
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From: ThyssenKrupp Materials NA

Cust. THYSSENKRUPP MATERIALS NA - ECAD Del: 2402214405

Part: PO: PEC# 244448

Wgt: 254.000 LB Date 12/17/2012

John R. Zambetti

# Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

**CERTIFICATO DI COLLAUDO**  
**ABNAHMEPRUEFZEUGNIS**  
**INSPECTION CERTIFICATE**  
**CERTIFICAT DE RECEPTION**  
**EN 10204 (2004) , 3.1**

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.  
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Besteller/Purchaser/Client  
**VALBRUNA STAINLESS INC.**  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**  
Hersteller/Item/Usine producer

Stato di fornitura: - Annealed Cold Drawn  
Lieferzustand/Delivery state/Etat de livraison

Avviso di Spedizione: D-VI12021835  
Lieferanzzeige/Packing list/B.L.

Ordine nr: 33807 **STOCK CAROL STR**  
Bestell/Your order/Commande

Tipo di Elaborazione: **E+AOD**  
Erzeugungsmethode/Melting process/Mode d'elaboration

Certificato nr: MEST225671/2012/  
Prüfung/Test/Essai

Conferma ordine nr: EI12005792  
Werkz/Our Order/Ref nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Sigle de l'usine productrice



Funzione del Collaudatore:  
Stempel des Werkssachverständigen  
Inspector's stamp/Pointon de l'essayeur



Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.  
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Vicenza, 13/07/12

VC0008  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Works Inspector / L' agent d' usine

M. Rizzotto *[Signature]*

Pagina - 2 di 2

From: ThyssenKrupp Materials NA

Cust. THYSSENKRUPP MATERIALS NA - ECAD Del: 2402214405

Part: PO: PEC# 244448

Wgt: 254.000 LB Date 12/17/2012

*[Signature: John R. Zambetti]*

# Certified Inspection Report

06/30/12  
00:25:14

Alcoa Inc.  
Massena Operations  
Park Avenue East, Massena, NY 13662



Customer  
**Copper Brass Sales**  
Ship To  
**Copper Brass Sales**  
**13338 Orden Dr. Building**  
**Santa Fe Springs, CA 906**

Customer P.O. No.  
**5400746469**  
Customer Part No.  
**(ALSC00010)**  
Alcoa Order No.  
**MMC-A3532-010**  
Govt. Contract No.

We hereby certify that the material covered in this report has been inspected in accordance with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, or as previously agreed to with customer and that samples representative of the material met the composition limits and have the mechanical properties shown on the face of this sheet. Manufactured under an ISO/TS 16949 registered quality management system Melted and manufactured in the USA.

Zhou Wang, Quality Assurance Manager

Date Shipped **06/29/12** Weight Shipped **724 lbs** Product **CFRB-CF SQ. Specific Length** BOL **000160411**  
Alloy - Temper **7075-T651** Size **1.50000 IN** Shape **SQ** Config **12 FT** QRR

Specifications:  
AMS 4123H (Except Marking)  
QQA-225/9E  
AMS-QQA-225/9E  
ASTM B21-12  
Material conforms to T6 requirements

Product produced and marked to the requirements of AMS-QQ-A-225/9 also meets the requirements of QQ-A-225/9.  
Product produced and marked to the requirements of QQ-A-225/9 also meets the requirements of AMS-QQ-A-225/9.

TEST REQUIREMENTS									
Max:	Test	U.T.S.	Test	T.Y.S.	Test	%Elong	Test	Test	Test
Min:	77.0	66.0	07.0						

Test Results									
Lot / Work Order	No. of Tests	U.T.S.	T.Y.S.	%Elong	Test	Test	Test	Test	Test
MA012003015	1	Max: 81.9	74.5	15.5					
		Min: 81.9	74.5	15.5					

TEST ABBREVIATIONS		
U.T.S.	T.Y.S.	%Elong
Ultimate Tensile Strength KSI	Tensile Yield Strength KSI	Elongation % in 2"

Alloy									
7075									
MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%Others
0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15
MIN									
1.2				2.1	0.18	5.1		Each	Total

Actual Started Chemistry									
LOT/WORK ORDER									
MA012003015									
MAX	%SI	%FE	%CU	%MN	%MG	%CR	%ZN	%TI	%OE
0.05	0.14	1.7	0.01	2.5	0.19	5.8	0.02	L.T. 0.05	%OT
MIN									
0.05	0.14	1.7	0.01	2.5	0.19	5.8	0.02	L.T. 0.15	Rem

## NOTES:

Mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product.  
This alloy meets the requirements of EU 2002/95/EC (RoHS) and EU 2000/53/EC for lead, mercury, cadmium and hexavalent chromium.

From: ThyssenKrupp Materials NA  
Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2402207844  
Part: PO: PEC# 244448  
Wgt: 33.000 LB Date 12/12/2012

348  
12/12/24

John A. Gumbrell

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

STAINLESS STEEL ROUND BAR 17-4 STAINLESS  
.750" DIA X 144.0000"  
PART NO.

PO/Rel 18619 ADD ON

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PEC-800500-004

20Dec12

Signed by: \_\_\_\_\_

Pg 1/2

### CERTIFICATE OF TESTS

CERT SERIAL# 000848487



**TALLEY METALS**  
A Carpenter Company

Talley Metals Technology, Inc.  
205 Talley Metals Lane  
McBee, SC, 29101 Tel: (610) 208-2000 (800) 338-4592

12/03/12

CUSTOMER/BESTELLER/CLIENT

COPPER & BRASS SALES  
22355 W ELEVEN MILE  
SOUTHFIELD, MI 48034

### ABNAHMEPRUEFZEUGNIS

### CERTIFICAT DE CONTROLE

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES SUBMITTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER/VERKAUFER/VENDEUR PAGE 1 OF 2

TALLEY METALS TECH, INC.

ACCOUNTS PAYABLE  
P. O. BOX 2498  
HARTSVILLE, SC 29551

CUSTOMER ORDER NO./BESTELL.-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
5400158467-0050	TLY170701 L16636	12/03/12	3250.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE:

G19883

UNS NUMBER S17400

PRODUCT DESCRIPTION: TYPE 17-4 SOLUTION ANNEALED COLD FINISH

SPECIFICATION: TALLEY 174-T1A CAP OF H900 (01/11/99)

AMS 2303 REV F (08/ /10)  
AMS 2315 REV F (01/ /08)  
AMS 5643 REV R (02/ /08)  
ASTM-A484-11  
ASTM-A564-10  
ASME-SA564 2011 EDITION (TYPE 630)  
ASTM-F899-12

SIZE 0.750000 IN. ( 19.05 MM) RD BAR

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN(XRF)	SI(XRF)	P (XRF)	S (COM)	CR(XRF)
0.028	0.76	0.30	0.021	0.025	15.29
NI(XRF)	MO(XRF)	CU(XRF)	N (FUS)	CB(XRF)	TA(XRF)
4.24	0.33	3.81	0.034	0.25	LT .01

CB+TA  
0.26

THIS HEAT MELTED BY THE ELECTRIC ARC/AOD PROCESSES  
THIS MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS  
OPERATIONS QUALITY PROGRAM MANUAL REVISION 30, DATED 09/28/11.

MILL HEAT TREATMENT:

TYPE SOL ANL  
TEMP 1900F  
TIME (BATCH FURNACE) 1.20 HOURS  
QUENCH WATER

DISCS MACROETCHED AND APPROVED

HARDNESS AS SHIPPED 311HBW ( 33HRC )

MICROSTRUCTURE - FERRITE

MAGNETIC PARTICLE: FREQUENCY = 0 / SEVERITY = 0

CAPABILITY

900 F( 482 C), 01 HR AIR COOL

HARDNESS 442HBW ( 47HRC )

DAS  
14 12/12/24  
9-89

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keine Haftung für die angegebenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

From: ThyssenKrupp Materials NA

Cust. THYSSENKRUPP MATERIALS NA - ECAD Del: 2402207840

Part:

PO: PEC# 244448

Wgt: 53.000 LB

Date 12/12/2012

*John R. Zambetti*

# THYSSENKRUPP MATERIALS NA

DART AEROSPACE

STAINLESS STEEL ROUND BAR 17-4 STAINLESS

.750" DIA X 144.0000"

PART NO.

PO/Rel 18619 ADD ON


We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL PEC-800500-004

20Dec12

Signed by: Pg 2/2

CERTIFICATE OF TESTS		ABNAHMEPRUEFZEUGNIS		CERTIFICAT DE CONTROLE	
CERT SERIAL# 000848487		<div style="border: 1px solid black; padding: 5px;"> <p>• THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAX. TITLE 18, CHAPTER 47.</p> <p>• THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.</p> <p>• MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.</p> <p>• THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.</p> </div>			
 <b>TALLEY METALS</b> A Carpenter Company  Talley Metals Technology, Inc. 205 Talley Metals Lane McHes, SC. 29301 Tel: (610) 208-2000 (800) 338-4592		<div style="display: flex; justify-content: space-between;"> <div> 12/03/12  CUSTOMER/BESTELLER/CLIENT    COPPER &amp; BRASS SALES  22355 W ELEVEN MILE  SOUTHFIELD, MI 48034 </div> <div> SELLER/VERKÄUFER/VENDEURPAGE 2 OF 2    TALLEY METALS TECH, INC.  ACCOUNTS PAYABLE  P. O. BOX 2498  HARTSVILLE, SC 29551 </div> </div>			
CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE		CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE		DATE/DATUM/DATE	
5400158467-0050		TLY170701 L16636		12/03/12	
WEIGHT/GEWICHT/POIDS		3250.000			
HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE:		G19883		UNS NUMBER S17400	
CAPABILITY					
900 F ( 482 C ), 01 HR		AIR COOL			
(T)RANSVERSE (L)ONGITUDINAL					
YIELD STRENGTH, (0.20 %) KSI (MPA)		204.0 ( 1407 )			
TENSILE STRENGTH, KSI (MPA)		206.0 ( 1420 )			
ELONGATION IN 1.40", %		11.0			
REDUCTION OF AREA, %		53.0			
<p>NO WELD REPAIR PERFORMED</p> <p>MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.</p> <p>WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN50049)</p>					
SSRD01402		STEPHANIE E. MCCULLUM QUALITY ASSURANCE ENGINEER CARPENTER TECHNOLOGY CORPORATION			

12/12/24

*Stephanie E. McCullum*

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From: ThyssenKrupp Materials NA

Cust. THYSSENKRUPP MATERIALS NA - ECAD Del: 2402207840

Part: PO: PEC# 244448

Wgt: 53.000 LB Date 12/12/2012

*John L. Zambetti*

FORM 12-2005

**DART**  
aerospaceDart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053**PURCHASE ORDER**

Purchase Order ID PO18619

Purchase Order Date 12/11/12  
PO Print Date 12/11/12

Page Number 1 of 4

## Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO ON M5W 5V8  
CA

## Contact Name

## Vendor Phone

## Vendor Fax

## Vendor Account Nbr

905 669 9444

905 738 9033

## Buyer

## Requisition Nbr

## Tax Resale Nbr

## Terms

## Currency

## FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

## Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA**FAKED**  
*M124029 124078*

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M304S18GA	304/316 .050 Sheet	12/19/12 Yes	320.00 sf	Yours ppd	\$3.2812	\$1,050.00
		<b>Special Inst:</b> MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH AS MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240  PLEASE NOTE: DO NOT DELIVER BEFORE THE 17 OF DECEMBER  RECEIVING WILL BE CLOSE DECEMBER 13 AND 14 FOR INVENTORY					
2	M304S20GA	304/316 .040 Sheet	12/19/12 Yes	320.00 sf	Yours ppd	\$2.4844	\$795.00
		<b>Special Inst:</b> MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH AS MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240					

## PO Instructions:

NO: PEC ST-518482 NO: PEC ST-514021  
NO: PEC ST-515417 NO: PEC ST-513880No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

## Change Nbr:

2

Change Date: 12/11/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO18619**

Purchase Order Date 12/11/12

PO Print Date 12/11/12

Page Number 2 of 4

Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

905 669 9444

905 738 9033

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

QTY	Part Number	Description	Unit	Price	Amount	Material	
3	M7075T6B1.000X1.000	7075 T6 BAR 1.00 x1.00	12/19/12	12.00	Yours ppd	\$12.5959	\$151.15
		Yes		f			

Special Inst: MATERIAL: 7075-T6 OR  
T651/T6510/T6511/T62 BAR  
AS PER AMS-QQ-A-225/9 OR AMS  
4122/4123/4186/4187 OR  
PER AMS-QQ-A-200/11

4	M303B1.000X03.000	303 BAR 1" X 3'	12/19/12	24.00	Yours ppd	\$49.8942	\$1,197.46
		No		f			

Special Inst: MATERIAL: AISI 303 SS BAR AS PER  
ASTM A582  
NOTE: AISI 304/316 NOT ACCEPTABLE

5	M174R0.750	17-4 round bar .750	12/19/12	36.00	Yours ppd	\$5.1500	\$185.40
		Yes		f			

Special Inst: MATERIAL: 17-4 PH/S17400 TYPE 630 SS  
ROUND BAR  
AS PER AMS 5643 OR ASTM A564

6	M7075T6B1.500X1.500	7075 T6 BAR 1.500 x 1.500	12/19/12	12.00	Yours ppd	\$16.0000	\$192.00
		Yes		f			

Special Inst: MATERIAL: 7075-T6 OR  
T651/T6510/T6511/T62 BAR  
AS PER AMS-QQ-A-225/9 OR AMS  
4122/4123/4186/4187 OR  
PER AMS-QQ-A-200/11

PO Instructions:

NO: PEC ST-518482 NO: PEC ST-514021  
NO: PEC ST-515417 NO: PEC ST-513880

No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr:

2

Change Date: 12/11/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO18619**

Purchase Order Date 12/11/12

PO Print Date 12/11/12

Page Number 3 of 4

Order From : VC-COP001  
THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

905 669 9444

905 738 9033

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

125028

7	M6061T6B0.375X00.750	6061T6 BAR .375 x .750	12/19/12 Yes	✓ 24.00 f	Yours ppd	\$2.5000	\$60.00 ~
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Special Inst: MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR ASTM B211 OR ASTM B221

8	M6061T6R0.500	6061-T6 Round Bar .500"	12/19/12 Yes	+ 48.00 f	Yours ppd	\$1.2000	\$57.60
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Special Inst: 6061-T6 (OR 6061-T651/ T6510/ T6511/ T62) ROUND BAR QQ-A-225/8 OR AMS-QQ-A-225/8 OR (AMS 4117/4128/4115/4116) OR QQ-A-200/8OR AMS-QQ-A-200/8 )OR AMS 4160) OR ASTM B211 OR ASTM B221

9	M6061T6R0.563	6061-T6 ROUND BAR .563	12/19/12 Yes	✓ 300.00 f	Yours ppd	\$0.6067	\$182.01
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Special Inst: 6061-T6 (OR 6061-T651/ T6510/ T6511/ T62) ROUND BAR QQ-A-225/8 OR AMS-QQ-A-225/8 OR (AMS 4117/4128/4115/4116) OR QQ-A-200/8OR AMS-QQ-A-200/8 )OR AMS 4160) OR ASTM B211 OR ASTM B221

PO Instructions:

NO: PEC ST-518482 NO: PEC ST-514021  
NO: PEC ST-515417 NO: PEC ST-513880

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required - YES NO

Change Nbr:

2

Change Date: 12/11/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO18619**

Purchase Order Date 12/11/12

PO Print Date 12/11/12

Page Number 4 of 4

Order From :

VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

905 669 9444

905 738 9033

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

10	M6061T6R0.750	6061-T6 Round Bar .750"	12/19/12 Yes	48.00 f	Yours ppd	\$1.0292	\$49.40
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**Special Inst:** 6061-T6 (OR 6061-T651/ T6510/ T6511/  
T62) ROUND BAR  
QQ-A-225/8 OR AMS-QQ-A-225/8 OR  
(AMS 4117/4128/4115/4116)  
OR QQ-A-200/8OR AMS-QQ-A-200/8 )OR  
AMS 4160)  
OR ASTM B211 OR ASTM B221

11	M6061T6R3.500	6061 RD bar 3.50	12/19/12 Yes	12.00 f	Yours ppd	\$22.3250	\$267.90
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**Special Inst:** 6061-T6 (OR 6061-T651/ T6510/ T6511/  
T62) ROUND BAR  
QQ-A-225/8 OR AMS-QQ-A-225/8 OR  
(AMS 4117/4128/4115/4116)  
OR QQ-A-200/8OR AMS-QQ-A-200/8 )OR  
AMS 4160)  
OR ASTM B211 OR ASTM B221

12	M6063T5A0.750W.063	Angle6063T5 .750 X.750 X.063w	12/19/12 Yes	21.00 f	Yours ppd	\$1.4286	\$30.00
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**PO Total:** \$4,217.92

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

PO Instructions:

NO: PEC ST-518482 NO: PEC ST-514021  
NO: PEC ST-515417 NO: PEC ST-513880

Change Nbr:

2

Change Date: 12/11/12

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO